

October 28, 2016

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Chief, Air and TRI Section
Enforcement Division
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, California 94105

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**RETURN RECEIPT REQUESTED** 

Director, Air Enforcement Division Office of Civil Enforcement U.S. EPA Headquarters, MC 2242A 1200 Pennsylvania Avenue, NW Washington, D.C. 20460

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RETURN RECEIPT REQUESTED

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-2-1-10459

Re: United States v. Asarco

Consent Decree No. CV-15-02206-PHX-DLR Quarterly Report for the Third Quarter of 2016

Presented below is Asarco's quarterly report for the third quarter of 2016, as required by paragraphs 55 and B.36 of the above-referenced consent decree.

## 1. REQUIREMENTS INDEPENDENT OF CONVERTER RETROFIT PROJECT

The following are not dependent on the completion of the converter retrofit project.

#### A. CIVIL PENALTY

The civil penalty due under the decree was paid in accordance with the terms of the decree on January 15, 2016.

#### B. THIRD-PARTY AUDIT OF FUGITIVE DUST CONTROLS

The draft Third-Party Audit Report was submitted to EPA on May 10, 2016. The final Third-Party Audit Report was submitted as an attachment in the Fugitive Dust Plan submittal on June 24, 2016. Both submittals were sent to EPA within 3 business days of Asarco having received them.

### C. PINAL COUNTY ROAD PAVING ENVIRONMENTAL MITIGATION PROJECT

The project plan was submitted to EPA for approval on June 16, 2016.

On August 5, 2016, Pinal County submitted to EPA its identification of the County's legal authority to accept the funding of the project and conduct the project using the funding.

Since the funding is not payable to the County until after the plan is approved, the County has spent \$0.00 on the project as of September 30, 2016.

# D. GILA COUNTY LEAD-BASED PAINT ABATEMENT ENVIRONMENTAL MITIGATION PROJECT

The project plan was submitted to EPA for approval on June 16, 2016.

Coordination of the special escrow account under agreement with the County is pending.

On August 1, 2016, Gila County submitted to EPA its identification of the County's legal authority to accept the escrow funding of the project and conduct the project using the funding.

Since the funding is not payable to the escrow account until after the plan is approved, the County has spent \$0.00 on the project as of September 30, 2016.

#### E. PERFORMANCE TESTING AND COMPLIANCE MONITORING

#### Method 5 data:

Method 5 performance testing was performed at the secondary hood baghouse, anode baghouse, and RR Cottrell ESP during the month of September 2016, however, the final reports have not been finalized as of September 30, 2016.

#### Method 5B data:

Method 5B performance testing was performed at the acid plant during the month of September 2016, however, the final report has not been finalized as of September 30, 2016.

#### PM CEMS data:

N/A. The Installation, Certification and QA/QC Protocol for the PM CEMS was submitted to EPA for approval on May 3, 2016. The protocol has not been approved by EPA at this time.

### Exceedances of applicable PM emissions limits:

N/A. PM CEMS monitors have yet to be installed.

## Investigation(s), causes(s) and corrective action(s) taken:

N/A. PM CEMS monitors have yet to be installed.

#### F. CONVERTER BLOWING LIMIT

Exceedance(s) of converter blowing limit of 32,000 SCFM averaged over 5 minutes of blowing and rolled each minute:

None

#### G. BAGHOUSE OPERATIONAL REQUIREMENTS

### Total alarm time for each bag leak detection system:

The secondary hood baghouse had the following alarms during the third quarter of 2016.

Date	Time of Alarm	Total Duration of Alarm (hours)	Module Number
8/2/2016	15:15 - 16:02	0.78	4
8/2/2016	12:34 - 12:34	0.02	5
8/2/2016	14:58 -18:09	3.18	5
8/2/2016	15:47 - 16:08	0.35	8
8/2/2016	17:59 - 18:12	0.22	8
8/20/2016	7:29 - 9:17	0.8	5
9/7/2016	21:44 - 21:46	0.03	6
9/8/2016	7:57 – 8:11	0.23	5
9/28/2016	11:17 – 12:06	0.82	6

The anode baghouse had the following alarms during the third quarter of 2016.

Date	Time of Alarm	Total Duration of Alarm (hours)	Module Number
8/22/2016	22:27 - 22:28	0.02	3
8/23/2016	7:39 - 7:42	0.05	3
8/23/2016	8:08 - 8:08	0.02	3
8/23/2016	9:00 - 9:00	0.02	3
8/23/2016	9:28 - 9:28	0.02	3

Exceedance(s) of alarm limit of no more than 5% of total operating time in any 6-month period:

None.

## Investigation(s), cause(s) and corrective action(s) taken:

All the alarms that occurred in the third quarter for the secondary hood baghouse were the result of rust in the air lines and a blow pipe that came off in module #5. Repairs of the rusty air lines and blow pipe occurred throughout the quarter. Additionally on August 20, 2016, September 8, 2016, and September 28, 2016 the bag leak detection monitor probes were cleaned by the instrument technicians.

The alarms on the anode baghouse on August 22 & 23, 2016 were caused by small leaks the bags in module 3. All bags were subsequently replaced in module 3.

## H. DUCON-TYPE WET SCRUBBER OPERATIONAL REQUIREMENTS

## Exceedance(s) of 0.05 g/dscm limit:

None.

Hourly (block) average pressure drop(s) and liquid flow rate(s) outside range established in most recent Method 5 test:

The hourly block averages outside the established range(s) are detailed in the enclosed compact disk.

## Investigation(s), cause(s) and corrective action(s) taken:

The investigation(s), cause(s) and corrective action(s) taken for each event are detailed in the enclosed compact disk.

## Times scrubber(s) not in service or believed to be malfunctioning:

The times that the scrubber(s) were not in service or believed to be malfunctioning are detailed in the enclosed compact disk.

## I. CORRECTIVE ACTION TRIGGERS FOR ACID PLANT

On July 2, 2016 and July 25, 2016 trigger levels occurred.

Date	Time of Trigger Level Alarm	Cause and Corrective Actions Taken if Necessary
7/2/2016	4:24 am	The trigger level was caused by an opacity measurement error as a result of light source/ retroreflector misalignment. The monitor's alignment was restored. The new ports and monitor mounting will be installed in the next smelter outage in November 2016.
7/25/2016	5:00 am	The trigger level was caused by an opacity measurement error as a result of light source/ retroreflector misalignment. The monitor's alignment was restored. The new ports and monitor mounting will be installed in the next smelter outage in November 2016.
7/25/2016	6:21 am	The trigger level was caused by an opacity measurement error as a result of light source/ retroreflector misalignment. The monitor's alignment was restored. The new ports and monitor mounting will be installed in the next smelter outage in November 2016.

## J. FACILITY-WIDE OPACITY LIMIT

Exceedance(s) of 20% opacity limit (Method 9) applicable to fugitive dust from any part of the facility:

None.

Investigation(s), causes(s) and corrective action(s) taken:

N/A.

#### K. FUGITIVE DUST CONTROL PLAN

The Fugitive Dust Plan, including the remaining engineering designs, was submitted to EPA on June 24, 2016 for EPA approval.

Deviation(s) from material handling requirements of approved fugitive dust control plan and corrective action(s) taken:

Fugitive Dust Plan has been submitted and is awaiting EPA approval.

Exceedance(s) of 15% Method 9 opacity limit on visible emissions from any source listed in the approved fugitive dust control plan (i.e., sources other than the furnaces and converter building) and corrective action(s) taken:

Fugitive Dust Plan has been submitted and is awaiting EPA approval.

Opacity readings outside major openings of secondary and tertiary crushers Total Enclosure or fine ore storage building in excess of minimum measurable opacity level over 6-minute period using long-path optical density monitors and corrective action(s) taken:

Fugitive Dust Plan has been submitted and is awaiting EPA approval.

Event(s) when DCS system recorded data outside of established operational parameters, investigation(s), cause(s), corrective action(s), and degree of success:

Fugitive Dust Plan has been submitted and is awaiting EPA approval.

## Dates and times when DCS system was not recording data:

Fugitive Dust Plan has been submitted and is awaiting EPA approval.

## L. PAVEMENT OF KENNECOTT AVENUE

The paving of Kennecott Avenue was completed on May 5, 2016.

## M. OPERATION AND MAINTENANCE PLAN

The preparation of the plan is pending. The due date for the plan is December 30, 2016.

## **Deviations from Operation and Maintenance Plan:**

N/A. O&M Plan has yet to be submitted for approval.

#### N. AMBIENT MONITORING NETWORK

Ambient monitoring network raw data and calculated ambient levels for the third quarter of 2016 are enclosed with this report on a compact disc. Note the Fugitive Dust Plan has been submitted and is awaiting EPA approval.

#### **High Wind events:**

High Wind Event data for the third quarter of 2016 is enclosed with this report on a compact disc. Note the Fugitive Dust Plan has been submitted and is awaiting EPA approval.

## O. PM CEMS Installation and Certification

The Installation, Certification and QA/QC Protocol for the PM CEMS was submitted to EPA for approval on May 3, 2016.

#### P. IMPLEMENTATION PERMITTING

The air quality permit for the converter retrofit project required under the decree was issued on January 19, 2016.

Preparation of the balance of the conforming permitting required under the decree is ongoing and corresponding permit revision applications will be submitted in a timely manner.

#### Q. PREPARATION OF FUGITIVE EMISSIONS STUDY PROTOCOL

Asarco selected SLR International Corp. to assist in preparing the fugitive emission study protocol. The protocol for the fugitive emission study was submitted to EPA for approval on June 15, 2016.

#### R. R&R COTTRELL ESP REPLACEMENT BAGHOUSE

Asarco's EPCM contract for the replacement project was awarded to Gas Cleaning Technologies, LLC (GCT) on January 7, 2016. The due date for the replacement is May 1, 2018.

#### S. DRY LIME SCRUBBING OF SO<sub>2</sub> ROUTED TO BAGHOUSES

The due date for beginning injection of high-surface-area hydrated lime and installing the SO<sub>2</sub> CEMS for the secondary hood baghouse and ESP replacement baghouse is May 1, 2018.

#### Failure(s) to meet applicable control efficiency:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken or status of demonstration of technical infeasibility of control efficiency:

N/A. Dependent upon CRP completion.

#### T. DIESEL ELECTRIC SWITCH LOCOMOTIVE SUPPLEMENTAL ENVIRONMENTAL PROJECT

The due date for purchasing and operating the new diesel-electric switch locomotive is December 30, 2018.

#### 2. REQUIREMENTS DEPENDENT UPON CONVERTER RETROFIT PROJECT

The following concern the converter retrofit project or are dependent upon the completion of the converter retrofit project.

#### A. Converter Retrofit Project

The due date for permanently ceasing operation of the 5 existing converters and completing the installation of 2 of the 3 new converters and their improved secondary hoods is May 1, 2018.

## B. TOTAL COMBINED BLOWING TIME OR SO<sub>2</sub> LIMIT ON ACID PLANT TAIL GAS

Exceedance(s) of total combined blowing time limit at all converters of 21 hours per 24-hour period rolled hourly, unless Asarco accepts 100 ppmv SO<sub>2</sub> limit on acid plant tail gas:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

### C. PRIMARY HOODING PARAMETER

Failure(s) to achieve minimum air infiltration ratio of 1:1 during blowing when improved hood is operational averaged over 24 blowing hours rolled hourly:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

## D. SECONDARY HOODING PARAMETER DURING BLOWING

Failure(s) to achieve minimum exhaust rate of 35,000 SCFM at a converter averaged over 24 blowing hours rolled hourly, unless an alternative parameter has been approved:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

## E. SECONDARY HOODING PARAMETER DURING NON-BLOWING

Failure(s) to achieve minimum exhaust rate of 133,000 SCFM at a converter averaged over 24 non-blowing hours rolled hourly, unless an alternative parameter has been approved:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

## F. SECONDARY HOODING PARAMETER WHEN HOOD DOORS ARE CLOSED

Failure(s) to achieve minimum negative pressure drop across a hood of 0.03 mm of Hg (0.007 inches of water), unless an alternative parameter has been approved:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

# G. TERTIARY HOODING PARAMETER AT ALL TIMES MATERIAL IS PROCESSED IN COPPER CONVERTER DEPARTMENT

Failure(s) to achieve minimum exhaust rate of 400,000 ACFM averaged over 24 hours of copper converter department material processing rolled hourly, unless an alternative parameter has been approved:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

## H. SO<sub>2</sub> EMISSIONS LIMIT FOR GASES COLLECTED FROM THE CONVERTERS

Exceedance(s) of applicable 650 ppmv limit for gases routed to acid plant or secondary hood baghouse or gases in the tertiary hood exhaust:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

# I. <u>VISIBLE EMISSIONS EXITING ROOF OF BUILDING HOUSING FURNACES AND CONVERTERS</u>

The due date for the submittal of a performance test plan per 40 C.F.R. § 63.1450(c) is 60 days after the completion of the converter retrofit project.

Exceedance(s) of 4% opacity limit applicable to visible emissions from furnaces and converter building and not yet superseded by requirements related to 3 long-path optical density monitors:

N/A. Dependent upon CRP completion.

Investigation(s), cause(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

#### PROCESS-WIDE TOTAL PM EMISSIONS LIMIT: J.

The due date for beginning the use of a measuring system described in paragraph 24.a of the decree is June 1, 2019.

# Exceedances of applicable total PM limit(s):

N/A. Dependent upon CRP completion.

# Investigation(s), causes(s) and corrective action(s) taken:

N/A. Dependent upon CRP completion.

#### IMPLEMENTATION OF APPROVED FUGITIVE EMISSIONS STUDY PROTOCOL K.

The due date for the commencement of the fugitive emissions study protocol for the initial study is 6 months after the completion of the converter retrofit project.

#### LONG-PATH OPTICAL DENSITY MONITORS SPECIFIED IN PROTOCOL L.

The due date for the installation of the three long-path optical density monitors at the building emission points specified in the fugitive emissions study protocol is 6 months after the completion of the initial study.

#### PROBLEMS ENCOUNTERED OR ANTICIPATED WITH COMPLIANCE 3.

Problems with consent decree compliance were not encountered during the third quarter of 2016 and are not presently anticipated.

#### 4. **CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Joseph A. Wilhelm General Manager

**Hayden Operations** 

JAW/rcg

**Enclosure** 

F/RayEnvionmental/AIR/HaydenOps/2015AsarcoCD/QuarterlyReports/2016/3Q16.doc

for I.A.W.